

REMARKS

Applicants appreciate the Examiner's thorough examination of the subject application and request reconsideration of the subject application based on the foregoing amendments and the following remarks.

Claims 1-57 are pending in the subject application. Claims 18-33 and 35-57 are withdrawn from consideration as the result of an Examiner's earlier restriction requirement. Applicants, however, based on the prior Office Action, believe that claims 1-62 are pending in the subject application and that claims 18-33 and 33-62 are withdrawn from consideration. Claim 3 is canceled. In view of the Examiner's earlier restriction/ species requirement, Applicants reserves the right to present any of the above-identified withdrawn claims in a divisional application. Applicants also understand that certain of the withdrawn claims (e.g., claim 18) that depend directly or indirectly from the pending claims being prosecuted will be re-joined in the event that there is a determination of allowable subject matter as to the related pending claims.

Claims 1-15, 17 and 34 stand rejected under 35 U.S.C. §102, 35 U.S.C. §103 and/or 35 U.S.C. §112, second paragraph. Claim 16 was objected to as depending from a rejected base claim, however, the Examiner indicated that this claim would be allowable if appropriately re-written in independent form.

Claim 3 was canceled in the instant amendment without prejudice to prosecuting the claim in a continuing application.

Claims 1 and 34 were amended so as to include the limitations of canceled claim 3.

Claim 63 was added, which independent claim was written so as to include the limitations of claims 1 and 16, but not the limitations of claim 2 and 15 the claims that intervene between claim 16 and the base claim, claim 1. Claims 64-66 also were added so as to depend directly/ indirectly from added claim 63. Claims 64 and 66 correspond to the limitations of canceled claim 3 and claim 65 corresponds to claim 15.

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Claims 66 and 67 were added so as to claim embodiments of the present invention.

Claims 2, 4-6, 12, 14, and 15 were amended to reflect changes in the language of the base claim and any intervening claims as well as reflecting any dependency changes resulting from claim cancellation, claim amendments or the addition claims. The amendments to the claims are supported by the originally filed disclosure.

35 U.S.C. §112, SECOND PARAGRAPH REJECTIONS

Claim 11 stands rejected under 35 U.S.C. §112 on the grounds that there are antecedent basis, indefiniteness and/or vagueness concerns with the identified claims. More specifically, claim 11 was rejected because the term "front-diffuser" could not be determined. The following addresses the rejections provided by the Examiner.

Applicants would draw the Examiner's attention to the discussion at pages 62-67 of the subject application, in particular pages 62-63 and 67, and also to Figures 13-15 thereof. The identified discussion includes a description of a front-diffusing plate as the second light-directing body. In view of this discussion, Applicants respectfully submit that one skilled in the art upon reading the subject application would be apprised of the scope of the invention as defined and set forth in claim 11.

Accordingly, it is respectfully submitted that claim 11 satisfies the requirements of 35 U.S.C. §112 and, as such, is in a condition for allowance.

35 U.S.C. §102 REJECTIONS

Claims 1-4, 6-15, 17 and 34 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Nakabaysahi et al. [USP 6,379,017; "Nakabysahi"], Bao et al. [USP 6,266,108; "Bao"] and/ or or Tai et al. [USP 6,092,904; "Tai"] for the reasons provided on pages 2-4 of the above-referenced Office Action. Because claims were amended in the foregoing amendment, the following

discussion refers to the language of the amended claim(s). However, only those amended features specifically relied on in the following discussion shall be considered as being made to overcome the prior art reference. The following addresses the specific rejections provided in the above-referenced Office Action.

Applicants claim, claim 1, a front-illuminating device including a light source, a first light-directing body and a second light-directing body. The first light-directing body is disposed in front of an object to be illuminated. The first light-directing body also has an incident surface on which light from the light source is made incident, a first light-releasing surface from which light is released to the object to be illuminated and a second light-releasing surface, placed face to face with the first light-releasing surface, for releasing light reflected from the object to be illuminated. The second light-directing body includes a first surface and a second surface that faces the first surface. The second light directing body also is disposed between the first light-directing body and the object to be illuminated such that the first surface of the second light-directing body faces the first light-releasing surface of the first light-directing body and the second surface of the second light-directing body releases light that has been made incident thereon from the first light-directing body through the first surface to the object to be illuminated.

The second light-releasing surface of the first light directing body is formed into a step shape in which slanting portions for reflecting light mainly from the light source toward the first light-releasing surface and flat portions for transmitting light reflected mainly from the object to be illuminated are alternately placed. The second light directing body is configured and arranged so a distance from each of the slanting portions on the second light-releasing surface of the first light-directing body to the surface of the second surface of the second light-directing body is essentially uniform.

NAKABAYSAHI

The above referenced office action asserts that Nakabaysahi discloses the front illumination device as set forth in claims 1-4, 6-7, 12-13, 17 ad 34. In particular, it is asserted therein that the layers identified by reference numerals 205, 332, and 361 in Nakabaysahi can be construed as the second body of the present invention and that this reference also discloses an anti-reflecting layer that is applied to the top surface of the LCD. Applicants respectfully disagree with the characterization of what is disclosed and taught in this reference.

As to the assertion that the elements identified by reference numerals 205, 332, and 361 in Nakabaysahi can be construed as the second body of the present invention, Applicants would note that this is inconsistent with the discussion and description therein as to what these layers comprise. As to reference numeral 205, (see Fig. 19) Nakabayashi states that this element denotes a reflecting surface and that this reflecting surface is a printed article such as a book or photograph, a screen display unit of personal computers or other office automation equipment, portable information terminals, portable video tape recorders and the like, or a reflection type liquid crystal display used in various monitors. Thus, it cannot be said that element 205 corresponds in any way to a second light-directing body of the present invention as it corresponds to the article being viewed and illuminated by that illuminating system described in Nakabaysahi. See col. 18, lines 12-22 of Nakabaysahi.

As to the element identified by reference numeral 332 this element is the lower face 332 of the light guide member 303 and not a second light-directing member. See col. 30, lines 10-14 and figure 36 of Nakabaysahi. Nakabaysahi does describe that the lower face 332 can be subjected to an anti-reflection treatment by the known vapor deposition method, dip method, thermal transfer method. Thus, it can hardly be said that the element 332 corresponds to a second light-directing body as this element is a feature of the light guide member which relates to the first light-directing member of the present invention.

As to reference numeral 361, this is described in Nakabaysahi as being one of the two substrates that makes up the liquid crystal panel. See col. 30, line 66-col. 31, line 8 and figure 38 of Nakabaysahi. Thus, it can hardly be said that the element 361 corresponds to a second light-directing body as this element is a feature of the LCD panel not the light illuminating system.

In sum, Nakabayshai does not disclose or describe a second light-directing body that is disposed between the first light-directing body and the article or object to be illuminated. It is further submitted that, even if Nakabaysahi was construed as somehow describing or disclosing a second light-directing body, the cited reference does not disclose or describe a second light-directing body having the structure/ configuration as more particularly set forth in claim 1. In this regard, Applicants would note that the cited reference nowhere describes the beneficial effects that are associated with such a structure and illustrated in Figs 10-11 of the subject application.

Applicants also respectfully submit that the cited reference also does not teach or suggest the front-illuminating device as set forth in claim 1. In addition, Applicants respectfully submit that the cited reference does not teach, suggest or offer any motivation for modifying the illuminating device disclosed therein so as to yield the front illuminating device as set forth in claim 1.

Applicants respectfully submit that the foregoing remarks distinguishing claim 1 from the cited reference also applies to distinguish claim 34 from the cited reference as well the claims dependent from claim 1.

It is respectfully submitted that claims 1-4, 6-7, 12-13, 17 ad 34 are patentable over Nakabaysahi at least for the foregoing reasons.

BAO

The above referenced office action asserts that Bao discloses the front illumination device as set forth in claims 1-4, 6, 8, 12, 14-15, 17 and 34. In particular, it is asserted therein that the index matching adhesive 40 as well as the bodies by reference numerals 70 and 80 in Bao can be

construed as the second body of the present invention. Applicants respectfully disagree with the characterization of what is disclosed and taught in this reference.

As to the bodies identified by reference numerals 70 and 80 in figure 26 of Bao, it is clear from the figure and the discussion in col. 18, lines 17-38 of Bao, that element 70 is a polarizing plate 70 and element 80 is the quarter-wavelength plate that are disposed upon the first substrate 1. It also is clear that these elements are not part of the illuminating system or device described in Bao but rather they are features of the liquid crystal display panel 0 shown in figure 26 of Bao. A bracket also is provided on the left side of the figure denoting that portion of the figure that corresponds to the liquid crystal panel 0. It is clear from this bracket that bodies 70 and 80 are part of the LCD panel. Thus, it can hardly be said that bodies 70 and 80 correspond to a second light-directing body, as that term is used in the subject application as these elements are features of the LCD panel not the light illuminating system.

As to the index matching adhesive 40, this feature more closely corresponds to the filler 84 described in the subject application such as that shown in figure 32 and the discussion related thereto. As the Federal Circuit has held, in deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify *corresponding elements* disclosed in the allegedly anticipating reference (emphasis added, citations in support omitted). *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, 730 F. 2d 1452, 221 USPQ 481,485 (Fed. Cir. 1984). In concluding that the '770 Patent did not anticipate the claims, the Federal Circuit in *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, at 221 USPQ 485-486, further provides that:

The '770 patent discloses an entirely different device, composed of parts distinct from those of the claimed invention, and operating in a different way to process different materials differently. Thus, there is no possible question of anticipation by equivalents. Citations omitted.

It is clear from the foregoing remarks, that the allegedly corresponding element identified by reference numeral 40 and disclosed in Bao does not in fact correspond to the second light-directing body of the claimed invention. Thus, there can be no disclosure or teaching in Bao of Applicants' invention as it relates to the index matching adhesive.

In sum, Bao does not disclose or describe a second light-directing body that is disposed between the first light-directing body and the article or object to be illuminated. It is further submitted that, even if Bao was construed as somehow describing or disclosing a second light-directing body, the cited reference does not disclose or describe a second light-directing body having the structure/ configuration as more particularly set forth in claim 1. In this regard, Applicants would note that the cited reference nowhere describes the beneficial effects that are associated with such a structure and illustrated in Figs 10-11 of the subject application.

Applicants also respectfully submit that the cited reference also does not teach or suggest the front-illuminating device as set forth in claim 1. In addition, Applicants respectfully submit that the cited reference does not teach, suggest or offer any motivation for modifying the illuminating device disclosed therein so as to yield the front illuminating device as set forth in claim 1.

Applicants respectfully submit that the foregoing remarks distinguishing claim 1 from the cited reference also applies to distinguish claim 34 from the cited reference as well the claims dependent from claim 1.

It is respectfully submitted that claims 1-4, 6, 8, 12, 14-15, 17 and 34 are patentable over Bao at least for the foregoing reasons.

TAI

The above referenced office action asserts that Tai discloses the front illumination device as set forth in claims 1-4, 9-11, 17 and 34. In particular, it is asserted therein that the collimator 38

can be construed as the second body of the present invention. Applicants respectfully disagree with the characterization of what is disclosed and taught in this reference.

The element identified by reference numeral 38, and its variants, is the light or light output such as that shown in figures 6 and 13 of Tai. That which is being specifically illustrated in these figures are the directional arrows or rays representing such light or light output. See also the discussion in for example, col. 4, lines 22-36 and col. 5, lines 35-40 of Tai. Thus, it can hardly be said that the feature identified by reference numeral 38 in Tai correspond to a second light-directing body, as that term is used in the subject application as this feature is the light or light output not a structural element of the light illuminating system described in Tai.

In sum, Tai does not disclose or describe a second light-directing body that is disposed between the first light-directing body and the article or object to be illuminated. It is further submitted that, even if Tai was construed as somehow describing or disclosing a second light-directing body, the cited reference does not disclose or describe a second light-directing body having the structure/ configuration as more particularly set forth in claim 1. In this regard, Applicants would note that the cited reference nowhere describes the beneficial effects that are associated with such a structure and illustrated in Figs 10-11 of the subject application.

Applicants also respectfully submit that the cited reference also does not teach or suggest the front-illuminating device as set forth in claim 1. In addition, Applicants respectfully submit that the cited reference does not teach, suggest or offer any motivation for modifying the illuminating device disclosed therein so as to yield the front illuminating device as set forth in claim 1.

Applicants respectfully submit that the foregoing remarks distinguishing claim 1 from the cited reference also applies to distinguish claim 34 from the cited reference as well the claims dependent from claim 1.

It is respectfully submitted that claims 1-4, 6, 8, 12, 14-15, 17 and 34 are patentable over Tai at least for the foregoing reasons.

The following additional remarks shall apply to each of the above.

As provided in MPEP-2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegel Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Or stated another way, "The identical invention must be shown in as complete detail as is contained in the ... claims. *Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ 2d. 1913, 1920 (Fed. Cir. 1989). Although identify of terminology is not required, the elements must be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990). It is clear from the foregoing remarks that the above identified claims are not anticipated by either of the three (3) cited references.

It is respectfully submitted that for the foregoing reasons, claims 1-4, 6-15, 17 and 34 are patentable over either of the three (3) cited reference(s) and, therefore, satisfy the requirements of 35 U.S.C. §102. As such, these claims, including the claims dependent therefrom are allowable.

35 U.S.C. §103 REJECTIONS

Claims 5 and 9-11 stand rejected under 35 U.S.C. § 103 as being unpatentable over the cited prior art for the reasons provided on pages 4-5 of the above-referenced Office Action. More particularly, claim 5 stand rejected as being unpatentable over either of Tai or Nakabaysahi and claims 9 and 11 stand rejected as being unpatentable over Bao. Because claims were amended in the foregoing amendment, the following discussion refers to the language of the amended claim(s). However, only those amended features specifically relied on in the following discussion shall be considered as being made to overcome the prior art reference. The following addresses the specific rejections provided in the above-referenced Office Action.

Each of claim 5, 9 and 11 depend directly or ultimately from claim 1. As indicated above in regards to the §102 rejections, Bao, Tai or Nakabaysahi do not disclose the front illumination

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device as set forth in claim 1. It also is submitted that neither of these three references, teach nor suggest the front illumination device as set forth in claim 1. Moreover, it is submitted that neither of these three reference, teach suggest not offer any motivation for modifying the devices or systems disclosed therein so as to yield the from illumination device as set forth in claim1. As such, it is submitted that at least because each of claims 5, 9 and 11 depend from an independent claim that is believed to be allowable, claims 5, 9 and 11 also are considered to be in allowable form.

As provided in MPEP 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F. 2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As provided above, the references cited include no such teaching, suggestion or motivation.

Furthermore, and as provided in MPEP 2143.02, a prior art reference can be combined or modified to reject claims as obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, and as provided in MPEP-2143, the teaching or suggestion to make the claimed combination and the reasonable suggestion of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As can be seen from the forgoing discussion regarding the disclosures of the cited references, there is no reasonable expectation of success provided in any of the references.

The Federal Circuit has indicated in connection with 35 U.S.C. §102 that in deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify *corresponding elements* disclosed in the allegedly anticipating reference (emphasis added, citations in support omitted). *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, 730 F. 2d

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1452, 221 USPQ 481,485 (Fed. Cir. 1984). Notwithstanding that the instant rejection is under 35 U.S.C. §103, in the present case the Examiner has not shown that the elements of the three cited references that are asserted as being equivalent to second light-directing body of the present invention correspond, as that term is used above by the Federal Circuit, in any fashion to the second light-directing body in its entire claimed form as set forth in any of the independent claims of the present invention.

It is respectfully submitted that for the foregoing reasons, claims 5, 9 and 11 are patentable over the cited reference(s) and thus, satisfy the requirements of 35 U.S.C. 103. As such, these claims are allowable.

CLAIM 16

In the above-referenced Office Action, claim 16 was objected to as being dependent upon a rejected base claim. It also was provided in the above-referenced Office Action, however, that this claim would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claim(s).

As indicated above, an independent claim (claim 63) was added in the foregoing amendment and written so as to include the limitations of pending claim 1 and the limitations of claim 16. Claim 63 also includes in small part, some of the limitations of claim 2, an intervening claim.

In as much as Applicants believe that the as-amended base claim, claim 1, is in allowable form, claim 16 was not re-written in independent form as suggested by the Examiner. Applicants, however, reserve the right to later amend the subject application so as to present any one or more of these claims in independent form or to add another independent claims that contains the limitations of claim 16, including the base claim and the intervening claims.

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CLAIMS 63-67

As indicated above, claims 63-67 were added to more distinctly claim embodiments/ aspects of the present invention. More particularly, and as indicated elsewhere herein, claim 63 was added and written to include the limitations of claims 1 and 16. Claims 64-66 also were added so as to depend directly/ indirectly from added claim 63. Also, claim 64 and 66 each correspond to some limitations of canceled claim 3 and claim 65 corresponds to claim 15. Further, claims 67 and 68 were added so as to claim embodiments of the present invention. These claims are clearly supported by the originally filed disclosure, including the originally filed claims. It also is respectfully submitted that these added claims are patentable over the cited prior art on which the above-described rejection(s) are based.

SEPCIFICATION OBJECTIONS

The Examiner objected to the specification of the subject application and requested correction thereof.

More particularly, the ABSTRACT was objected to because of its length/ use of legal phraseology. The ABSTRACT was amended in the foregoing amendment to address the Examiner's objections. As such, the ABSTRACT, as amended, is considered acceptable.

It is respectfully submitted that for the foregoing reasons, the specification satisfies applicable Patent laws and rules and, therefore is considered acceptable.

OTHER MATTERS

In reviewing their files, Applicants have noticed that they have not received an indication of the Examiner's consideration of all the Information disclosures Statements, Supplemental Information Disclosure Statement and/ or Search Report Information Disclosure Statements previously submitted by Applicants.

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Accordingly, Applicants herewith submit a copy of each of the previously submitted Information Disclosure Statements without the enclosures for which it has not received an initialed PTO-1449 from the USPTO reflecting consideration of the art identified therein. Applicants thus respectfully request the Examiner to reflect their consideration of this IDS in the next official communication from the USPTO.

In addition, Applicants noticed a typo in the PTO-1449 included with the Supplemental IDS dated December 5, 2002. Applicants will be filing under separate cover a Supplemental IDS submitting a corrected PTO-1449 for the Examiner's action.

Applicants also note that another Supplemental IDS will be filed under separate cover so as to cite art recently identified from a corresponding Japanese Patent Application.

Applicants respectfully request the Examiner to call the undersigned collect and the below number in the event that the any of the above needs to be again submitted by Applicant for the Examiner's consideration.

It is respectfully submitted that the subject application is in a condition for allowance. Early and favorable action is requested.

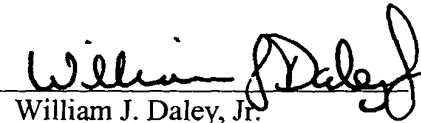
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Because the total number of claims and/or the total number of independent claims post amendment now exceed the highest number previously paid for, a check is enclosed herewith for the required additional fees. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,
Edwards & Angell, LLP

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By:



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